# COURSE POLICY SPRING 2003

# EA417 Elements of Flight Test Engineering

**Text/Reference**: Ward and Strganac, *Flight Test Engineering* plus class handouts and exerpts from U.S. Naval Test Pilot School Flight Test Manuals.

**Course Description**: A lecture and laboratory course designed to provide practical application of theoretical principles learned in Flight Performance, Aerodyanmics and Stability and Control. Topics include background, flight test theory, purpose of flight test, engineering test planning, flight test instrumentation ,data analysis and report writing. A flight simulator and several flights in an aircraft are planned for the course, as well as involvement with Naval test flight activities for test data acquisition and analysis.

**Class hours**: Two one hour lectures and one two hour laboratory per week including four flights in the aircraft per student.

**Class/Laboratory/Homework**: The primary graded product in this class is one Flight Report for each subject area covered and short form Mini-Reports for simulator studies. Additionally, laboratory work and presentations may be graded and announced and unannounced quizzes may be given. There is no final examination.

Unless otherwise stated, limited consulting between students on their assignments is encouraged. Copying, of course, is never permitted. All work turned in must represent your own thoroughly developed product.

Graded projects are due at the beginning of the class period on the day specified. The Aerospace Engineering Department Late Submittal Policy applies. A copy is attached.

If you know that you will miss a scheduled quiz or laboratory, you must make arrangements with the appropriate Instructor to make-up the quiz or laboratory **prior** to the day of the quiz. Otherwise, you are expected to take the quiz as scheduled. Failure to either take a quiz as scheduled or to make alternate arrangements with the Instructor prior to the scheduled quiz will result in assignment of a grade of zero for the quiz. Aircraft flights cannot be made up.

Collaboration, use of materials and time limits for quizzes will be given in writing on each quiz.

You may use any drawing instrument, pocket calculator, or computer on a quiz. Exchanging of calculators during quizzes in not permitted without the explicit approval of the Instructor in each case. Programmable calculator programs or computer programs used during a quiz **must have been written by you**. This rule does not include such programs as root solvers, matrix inverters, etc. If in doubt, **ask before the quiz**. It is **your** responsibility to ascertain whether a program may be used. You are expected to provide a backup for calculator or computer failure.

The Instructors do not debug computer programs.

Grades will be assigned based on the quizzes/homework, graded projects.

Approximate weighting is:

| | |
|---|---|
| Quizzes/Homework | 10% |
| Flight reports | 70% |
| Simulator mini-reports | 20% |

The correspondence between letter grades and percentile grades is

| | |
|---|---|
| A | 90-100 |
| B | 80-89 |
| C | 70-79 |
| D | 60-79 |
| F | 0-59 |

The Instructors reserve the right to adjust grades of borderline students either up or down as he sees fit. If the Instructors determine that the student has behaved inappropriately, e.g., by cheating, plagarism, or the use of a previous students work, etc., on any quiz, graded project or examination, etc., then the Instructors reserve the right to assign a grade of F for that work or for the **entire course**.

Mere physical absence from class does not absolve the student from his or her responsibility to complete any assignment made or master any material presented during his or her absence. Extra instruction is available on a first-come, first-served basis at the request of the student and the convenience of the Instructors.

The Instructors will answer brief questions by telephone during the evenings or on weekends at the times indicated below. You are encouraged to communicate via email.

| | Professor Rogers | Asst. Professor Corda | CAPT Niewoehner |
|---|---|---|---|
| Schedule | M-F 2000 –2300 | | Before 2300 |
| | SaSu 0930 – 1800 | | Before 2300 |
| | 2000 – 2300 | | |
| Tel(h) | 410-757-5724 | | 410-349-1202 |
| Tel(h) | 410-293-6415 | | 410-293-6401 |
| email | dfr@usna.navy.mil | corda@usna.edu | niewoehn@nadn.navy.mil |
| O ce | R214 | R214 | R327A |

David F. Rogers, PhD
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Stephen Corda
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